Claims:

1.   A method for performing a gradual refresh of picture content in connection with random access into an encoded video sequence, the video sequence comprising a number of video frames, the picture content of each frame being encoded in one of at least a

5   non-temporally predicted format and a temporally predicted format, characterized in that the gradual refresh is implemented by defining a region within the picture area represented by the video frames, refreshing the picture content of the region progressively as each encoded frame of the video sequence is decoded after said random access and causing the region to evolve progressively in a predetermined manner over a

10   period of more than one frame to cover the entire picture area represented by the video frames, thereby providing a complete refresh of the picture content.

2.   A method according to claim 1, characterized in that said random access occurs at a frame encoded in a temporally predicted format.

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3.   A method according to claim 1, characterized in that said random access occurs at a frame encoded in a non-temporally predicted format.

4.   A method according to claim 1, characterized in that an indication of the

20   predetermined manner in which said region evolves is provided in a bit-stream representative of the encoded video sequence.

5.   A method according to claim 4, characterized in that said indication of the predetermined manner in which said region evolves includes an indication of direction in which said region evolves.

6.   A method according to claim 4, characterized in that said indication of the predetermined manner in which said region evolves includes an indication of a growth rate that specifies an amount by which said region grows from one frame to the next.

7.   A method according to claim 6, characterized in that said indication of a growth rate specifies a number of macroblocks by which the region grows from one frame to the next.

8.   A video decoder arranged to implement the method according to claim 1.